

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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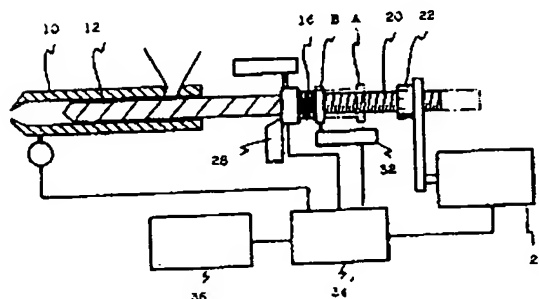
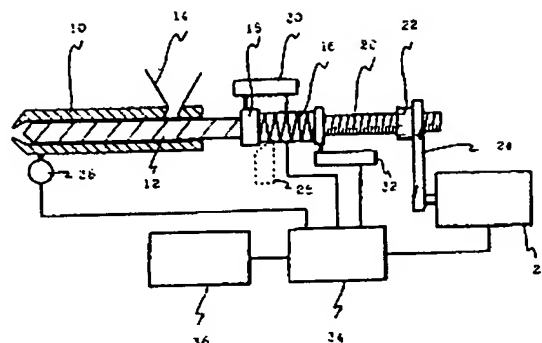
APPLICATION DATE : 08-02-90  
APPLICATION NUMBER : 02029178

APPLICANT : SYST DESIGN:KK;

INVENTOR : KOBAYASHI YUTAKA;

INT.CL. : B29C 45/50

TITLE : HIGH-SPEED INJECTION MECHANISM  
OF MOTOR-DRIVEN INJECTION  
MOLDING MACHINE



ABSTRACT : PURPOSE: To easily carry out high-speed injection at the time of starting injection by providing a pushing means, such as a ball screw, which moves forward and backward in the axial direction of an injection screw and which is interlocked with an electric motor, on the rear side of the injection screw, and providing a spring, which is resiliently repulsed in the axial direction of the injection screw, between the front part of the pushing means and the rear part of the injection screw.

CONSTITUTION: After a molten resin is injected, an injection screw 12 is moved back from an injection position to meter a molding material and, after metering, the injection screw 12 is locked by a locking means (stopper) 28 to prohibit the injection screw from advancing. On the other hand, elastic strain energy is accumulated to spring 16 by advancing a pushing means such as a ball screw 20 up to a predetermined position. When predetermined energy is accumulated to the spring 16, the locking means 28 is disengaged to release the energy accumulated to the spring 16 and, at the same time, an electric motor 26 is actuated to push the injection screw 12 forward to inject a molten resin.

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